UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ECOLOGICAL SITE DESCRIPTION

ECOLOGICAL SITE CHARACTERISTICS

Site Type: Rangeland

Site ID: R051XA001NM

Site Name: Loamy

Precipitation or Climate Zone: 9 to 13 inches

Phase:

PHYSIOGRAPHIC FEATURES

Narrative:

This site occurs on nearly level to gently sloping mesa lands and low rolling hills. Slopes vary from 1 to 10 percent. Elevations range from 7,400 to 8,400 feet above sea level.

Land Form:

1. Mesa
2. Hill
3.

Aspect:

1. N/A
2.
3.

	Minimum	Maximum
Elevation (feet)	7,400	8,400
Slope (percent)	1	10
Water Table Depth (inches)	N/A	N/A

Flooding:	**Minimum**	**Maximum**
Frequency	Rare	Rare
Duration	Brief	Brief

Ponding:	**Minimum**	**Maximum**
Depth (inches)	N/A	N/A
Frequency	N/A	N/A
Duration	N/A	N/A

Runoff Class:

Negligible to medium.

CLIMATIC FEATURES

Narrative:

Mean annual precipitation varies from 9 to 13 inches. Departures from the average of 4 inches or more are common. Approximately 50 percent of this moisture occurs during the vegetative growth period, April through September. Over 20 percent of the precipitation comes in the form of high intensity summer thunderstorms which influence the presence and production of warm-season plants. Winter and early spring moisture in the form of rain or snow influences the presence and production of cool-season plants. This moisture also influences maximum shrub growth.

Mean annual temperature varies from 64 degrees F in July to 21 degrees F in January. The average last killing frost in the spring is May 30 and the first killing frost in the fall is September 30. The frost-free period is approximately 120 days, but freezing temperatures have been recorded every month except July and August.

Wind velocities are relatively light most of the year with stronger winds occurring in the spring and early summer. These winds increase transpiration rates of plants and rapidly dry the surface soil.

Climate data was obtained from http://www.wrcc.sage.dri.edu/summary/climsmnm.html web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

	Minimum	Maximum
Frost-free period (days):	68	130
Freeze-free period (days):	95	154
Mean annual precipitation (inches):	9	13

Monthly moisture (inches) and temperature (^{0}F) distribution:

	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	.62	1.06	4.0	39.7
February	.57	1.14	7.9	45.3
March	.76	1.80	14.5	52.7
April	.82	1.75	21.8	62.6
May	.89	1.79	28.7	71.9
June	.90	1.29	32.9	81.9
July	1.67	2.90	40.8	85.4
August	1.85	3.18	40.2	83.2
September	1.26	1.60	33.6	76.4
October	1.06	1.53	25.0	65.7
November	.67	1.34	13.9	52.9
December	.64	1.15	6.0	41.6

Climate Stations:

				Period	
Station ID 291630	Location Cerro, NM	From: 02/01/32	To: 12/31/00		
Station ID 297323	Location Red River, NM	From: 01/01/15	To: 12/31/00		
Station ID 297668	Location Taos, NM	From: 01/01/14	To: 12/31/00		
Station ID 299085	Location Tres Piedras, NM	From: 01/01/14	To: 12/31/00		

INFLUENCING WATER FEATURES

Narrative:

This site is not influenced by water from a wetland or stream.

Wetland description:

System	Subsystem	Class
N/A		

If Riverine Wetland System enter Rosgen Stream Type:
N/A

REPRESENTATIVE SOIL FEATURES

Narrative:

These medium textured soils are moderately deep to deep, well-drained soils. They may contain some gravel but not enough to affect the kind and amount of vegetation. They have loamy or clay loam surface horizons. Subsoils are generally heavier textured. Infiltration and internal water movement is moderate to good. These soils have a high water-holding capacity, adequate for holding all the normal precipitation.

Parent Material Kind: Alluvium
Parent Material Origin: Mixed

Surface Texture:

1. Loam
2. Clay loam
3.

Surface Texture Modifier:

1. N/A
2.
3.

Subsurface Texture Group: Clayey

Surface Fragments <=3" (% Cover): N/A

Surface Fragments >3" (% Cover): N/A

Subsurface Fragments <=3" (%Volume): >60

Subsurface Fragments >=3" (%Volume): 15 to 35

	Minimum	**Maximum**
Drainage Class:	Well	Well
Permeability Class:	Slow	Moderately slow
Depth (inches):	60	<72
Electrical Conductivity (mmhos/cm):	0.00	4.00
Sodium Absorption Ratio:	N/A	N/A
Soil Reaction (1:1 Water):	6.6	8.4
Soil Reaction (0.1M CaCl2):	N/A	N/A
Available Water Capacity (inches):	9	12
Calcium Carbonate Equivalent (percent):	N/A	N/A

PLANT COMMUNITIES

Ecological Dynamics of the Site:

Plant Communities and Transitional Pathways (diagram)

Plant Community Name: Historic Climax Plant Community

Plant Community Sequence Number: 1 **Narrative Label**: HCPC

Plant Community Narrative: Historic Climax Plant Community
This is a western wheatgrass grassland site with scattered shrubs of big sagebrush. Other grasses and shrubs occur in lesser amounts.

Canopy Cover:	
Trees, shrubs and half-shrubs	10 %
Ground Cover (Average Percent of Surface Area).	
Grasses & Forbs	25
Bare ground	55
Surface gravel	5
Surface cobble and stone	0
Litter (percent)	15
Litter (average depth in cm.)	2

Plant Community Annual Production (by plant type):

Annual Production (lbs/ac)

Plant Type	Low	RV	High
Grass/Grasslike	225	413	600
Forb	30	55	80
Tree/Shrub/Vine	86	158	230
Lichen			
Moss			
Microbiotic Crusts			
Total	375	688	1,000

Plant Community Composition and Group Annual Production:

Plant Type - Grass/Grasslike

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
1	PASM	Western Wheatgrass	275 – 344	275 – 344
2	BOCU	Sideoats Grama	0 – 34	0 – 34
3	ELEL5	Bottlebrush Squirreltail	14 – 24	14 – 24
4	BOGR2	Blue Grama	14 – 28	14 – 28
5	2GRAM	Other Grasses	T – 34	T - 34

Plant Type - Forb

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
6	ASTER	Aster	7 – 14	7 – 14
7	ERIOG	Buckwheat spp.	T – 21	T – 21
8	ASTRA	Astragalus spp	T – 21	T – 21
9	SPCO	Scarlet Globemallow	T – 21	T – 21
10	PLPA2	Wooly Indianwheat	T – 21	T – 21
11	2FP	Other Perennial Forbs	T – 21	T – 21
12	2FA	Other Annual Forbs	T – 21	T - 21

Plant Type – Tree/Shrub/Vine

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
13	ARTR2	Mountain Big Sagebrush	103 – 138	103 – 138
14	ATCA2	Fourwing Saltbush	T – 21	T – 21
15	HYRI	Pingue	7 – 14	7 – 14
16	GUSA2	Broom Snakeweed	7 – 14	7 – 14
17	ERNAN5	Rubber Rabbitbrush	T – 7	T – 7
18	2SD	Other Shrubs	T – 28	T - 28

Plant Type - Lichen

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Plant Type - Moss

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Plant Type - Microbiotic Crusts

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Other species include: Indian ricegrass, prairie junegrass, muttongrass, muhly spp., dropseed spp., threeawn spp., phlox, penstemon, Indian paintbrush, Russian thistle, and winterfat.

Plant Growth Curves

Growth Curve ID **3501NM**

Growth Curve Name: **HCPC**

Growth Curve Description: **Western wheatgrass grassland with scattered shrubs. Other grasses, shrubs and forbs are minor components.**

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	3	5	10	10	25	30	12	5	0	0

ECOLOGICAL SITE INTERPRETATIONS

Animal Community:

Habitat for Wildlife:

This ecological site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, long-tailed weasel, white-tailed jackrabbit, Ord's kangaroo rat, Gunnison's prairie dog, Botta pocket gopher, horned lark, and western toad.

The vesper sparrow is a typical summer resident. Mule deer and elk will move out of adjacent habitats to feed on this site. Antelope were absent from the historical ranges from approximately 1910 until the early 1940's, when wild captured animals were transplanted to the long unoccupied habitats.

Hydrology Functions:

The runoff curve numbers are determined by field investigations using hydrologic cover conditions and hydrologic soil groups.

Hydrologic Interpretations	
Soil Series	**Hydrologic Group**
Manzano	B
Stunner	B
Tenorio	B

Recreational Uses:

This site has little recreation value and fair value for picnicking, camping, or hunting. It has poor value for aesthetic appeal and natural beauty. In the spring and early summer, blooming forbs provide a fair aesthetic appeal.

Wood Products:

This site produces no significant wood products in the potential plant community.

Other Products:

Grazing:

Approximately 90 percent of the vegetation produced on this site is suitable for grazing or browsing by domestic livestock and wildlife. Grazing distribution is generally not a problem if adequate waterings are provided. Continuous grazing, which allows repetitive grazing of the desirable species, eventually leads to a decrease in these species from the plant community. Such deterioration is indicated by a decrease in western wheatgrass, sideoats grama, and fourwing saltbush. Species that increase include blue grama, dropseeds, threeawns, big sagebrush, rabbitbrush, and broom snakeweed. A planned grazing system with periodic deferment is best to maintain the desirable balance between plant species and to maintain high productivity.

Other Information:

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index	**Ac/AUM**
100 - 76	2.9 – 3.9
75 – 51	3.8 – 5.9
50 – 26	5.7 – 11.8
25 – 0	11.8+

Plant Part	Code	Species Preference	Code
Stems	**S**	**None Selected**	**NS**
Leaves	**L**	**Preferred**	**P**
Flowers	**F**	**Desirable**	**D**
Fruits/Seeds	**F/S**	**Undesirable**	**U**
Entire Plant	**EP**	**Not Consumed**	**NC**
Underground Parts	**UP**	**Emergency**	**E**
		Toxic	**T**

Plant Preference by Animal Kind:

Animal Kind: Livestock
Animal Type: Cattle

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Western Wheatgrass	Pascopyrum smithii	EP	D	D	P	P	P	D	D	D	D	D	D	D
Sideoats Grama	Bouteloua curtipendula	EP	P	P	P	P	P	P	P	P	P	P	P	P
Fourwing Saltbush	Atriplex canescens	L/S	P	P	P	P	P	D	D	D	D	D	D	P

SUPPORTING INFORMATION

Associated sites:

Site Name	Site ID	Site Narrative

Similar sites:

Site Name	Site ID	Site Narrative

State Correlation:

This site has been correlated with the following sites: _____

Inventory Data References:

Data Source	# of Records	Sample Period	State	County

Type Locality:

State: **New Mexico**

County: **Taos**

Latitude: _____

Longitude: _____

Township: _____

Range: _____

Section: _____

Is the type locality sensitive? **Yes** ☐ **No** ☐

General Legal Description: _____

Relationship to Other Established Classifications:

Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the High Intermountain Valleys 51 Major Land Resource Area of New Mexico. This site has been mapped and correlated with soils in the following soil surveys: Taos

Characteristic Soils Are:	
Manzano	Stunner
Tenorio	
Other Soils included are:	

Site Description Approval:

Author	Date	Approval	Date
Don Sylvester	05/15/84	Don Sylvester	05/15/84

Site Description Revision:

Author	Date	Approval	Date
Elizabeth Wright	07/10/02	George Chavez	2/12/03